

TORREYA

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DUPLICATION OF CONTRIBUTIONS ON PHYSIOLOGY OF TENDRILS

BY D. T. MACDOUGAL

The author of this note spent some time in making observations and experiments upon the tendrils of *Entada scandens*, the West Indian filbert, in the Botanic Gardens at Bath and Castleton, Jamaica, in the summer of 1897, and some additional anatomical work was carried out in the laboratory later in the year. A brief note containing the chief results of the experiments was read before the Indiana Academy of Science, December 30, 1897, and a detailed account of the entire investigation was published in the Bulletin of the Torrey Botanical Club in 1898 (25: 65-72. f. A-F), under the title of "Contribution to the Physiology of Tendrils."

By reference to the accompanying figures, which were omitted from the original paper it may be seen that the tendrils of *Entada* are the transformed terminal leaflets of the large bipinnate leaves. The tendrils are extremely sensitive over their entire surfaces, and curve to the most delicate touch, and the efficiency of this pair of grasping organs is far greater than that of any single tendril, due in part to their rapid action and to their combined mechanical superiority. The detail of the structure and action of these organs is given in the article cited.

Dr. Haberlandt has recently published in pamphlet form a lengthy treatment of tendrils and other sensitive organs under

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the title of "Sinnesorgane im Pflanzenreich zur Perception mechanischer Reize (Leipscic, 1901), in which a historical résumé of the researches upon the included subjects is attempted. The larger portion of the work is devoted to "Special investigations" upon the sensory organs of various plants.



FIG. 1. Leaf of *Entada scandens* with terminal tendrils.

In this section Dr. Haberlandt describes briefly the results of his own work upon *Entada scandens* and seems wholly unaware of my own more detailed work published three years previously as noted above, to which he has not added a single fact, or generalization of any importance. He has been equally unconscious of the facts in regard to the sensory cells and perceptive organs of other tendrils described by myself still earlier in the *Annals of Botany* (39: 394. 1896). If Dr. Haberlandt's remissness consisted solely in a disregard of my published results the fault might be easily condoned, but a glance at the other sections of the treatise shows that a description of the similar omissions in regard to other work would fill a complete number of this journal.

It is truly lamentable that with such opportunity for exactness and completeness Dr. Haberlandt has written a paper historically

inadequate, and speciously misleading as to the value and priority of his own work. The bibliography of the entire subject is most easily accessible in any well-arranged botanical library. The lack of consideration to published researches is most marked with respect to articles in English and American journals, and while it may not be wilful neglect, yet it is constructive ignorance and speaks most clearly of a careless and unscientific habit of inves-



FIG. 2. Various positions assumed by tendrils of *Entada scandens*.

tigation, entirely inexcusable in an author of such extensive experience. Furthermore, it is indicative of a form of narrow provincialism to which the writer has had occasion to call attention more than once. (See Transmission of Impulses in *Biophytum* Bot. Centralb. 77: 297. 1899.) In the present instance it renders Dr. Haberlandt's work untrustworthy to quite a degree.

CRYPTOGAMIC AND PHYSIOLOGICAL BOTANY AT COLD SPRING HARBOR IN 1901

BY EDWIN BINGHAM COPELAND

The Flora.—The field work in cryptogamic botany, carried on in major part by Mr. A. F. Blakeslee, has resulted in a large